

# **NetApp Portfolio: Exploring SAN Architectures and Configurations (SANARCH)**

**Modality: Virtual Classroom**

**Duration: 2 Days**

**NATU: 24 Units**

## **About this course:**

Exploring SAN Architectures and Configurations by QuickStart is a 2-day course where an instructor will teach you the fundamentals of differentiating between the types of SAN architectures included in the NetApp portfolio:

- ALL Flash FAS and FAS systems in clustered DATA ONTAP operating system
- EF-Series and E-Series systems in the SANtricity operating system

The average annual income for a Systems Engineer is **\$84,166**.

## **Course Objectives:**

By the end of this course, you will be able to:

- Understand the NetApp SAN platforms: AFF, FAS, EF-Series, and E-Series storage systems
- Understand the NetApp storage architectures: SANtricity operating systems and Data ONTAP
- Distinguish between the SANtricity operating systems and NetApp clustered Data ONTAP
- Configure the SANtricity operating systems and Data ONTAP
- Understand the parameters to select the most appropriate solution and system for different scenarios, workflows, and applications. **Audience:**
- Systems Engineer (SE), Customer

## **Prerequisites:**

NetApp Core Technical Training or equivalent knowledge

- Basic knowledge of Data ONTAP OS
- Basic knowledge of SANtricity OS
- Basic knowledge of Mars OS

## **Course Outline:**

### **Module 1: NetApp SAN Architectures**

- Define the NAS and SAN protocols
- Explain the different SAN terms
- Explain the NetApp hybrid SAN portfolio

- Explain the NetApp ALL-Flash SAN portfolio

## **Module 2: NetApp Storage Architectures**

- Explain the Data ONTAP storage architecture
- Explain the SANtricity storage architecture
- Analyze performance
- Explain data management
- Explain data protection

## **Module 3: FAS with Data ONTAP**

- Explain FAS Architecture
- Explain FAS failover and failback
- Explain Data ONTAP software
- Explain Data ONTAP features
- Explain Data ONTAP protection features

## **Module 4: Data ONTAP Implementation**

- Use Data ONTAP to implement a SAN on FAS
- Simulate ONTAP 8

## **Module 5: E-Series with SANtricity**

- Define E-Series architecture
- Explain E-Series failover and failback
- Explain SANtricity software
- Explain SANtricity features
- Explain SANtricity protection features

## **Module 6: SANtricity Implementation**

- Use SANtricity to implement a SAN on E-Series
- Simulate SANtricity storage manager

## **Module 7: NetApp SAN Solutions**

- Explain the NetApp portfolio
- Explain how to choose a system
- Explain system sizing

## **Appendix A: Flexarray Virtualization Software and V-Series**

- Explain Flexarray storage virtualization software
- Explain Storage arrays
- Explain supported topologies
- Pre-installation planning

- System deployment

## **Appendix B: SAN Data Migration**

- Describe data migration
- Explain the 7-Mode transition tool
- Import foreign LUN

## **LABS**

### **EXERCISE 1: USING THE INTEROPERABILITY MATRIX TOOL**

- Use the IMT to verify support for FAS controllers
- Use the IMT to verify support for E-Series controllers
- Save results from the IMT

### **EXERCISE 2: EXERCISE ENVIRONMENT**

- Identify the exercise environment
- Log in to the exercise environment

### **EXERCISE 3: CLUSTERED DATA ONTAP 8.3 ISCSI IMPLEMENTATION**

- Verify that the Microsoft device-specific module (DSM) is configured correctly
- Verify the configuration of an iSCSI software initiator
- Use NetApp OnCommand System Manager to prepare a cluster for a storage virtual machine (SVM)
- Use System Manager to create an SVM for iSCSI and an iSCSI-attached LUN for Windows Server
- Configure the iSCSI software initiator
- Use an iSCSI-attached LUN in Windows

### **EXERCISE 4: SANTRICITY STORAGE MANAGER**

- Launch the SANtricity Storage Manager simulator
- Navigate the Enterprise Management and Array Management windows
- Create a RAID 6 volume group
- Create a volume in a volume group
- Assign a hot spare disk
- Create a disk pool
- Create a volume in a disk pool
- Change volume settings
- Define a host

### **EXERCISE 5: NETAPP SALES SCENARIOS**

- you should be able to provide guidance to a sales representative.

